

U.S. Patent Application No. 09/606,575

**Amendment to the Claims**

Please amend Independent Claims 1, 31-39, 42, and 45, as follows:

- 5 1. (currently amended) A computer implemented method of generating an enhanced profile of an individual entity, the profile including for each member of the individual entity, ~~a single observation having at least one variable describing historical~~ transactions pertaining to that member, the method comprising:
- 10 generating at least one single entity profile of an individual entity having individual members, from historical transactions of the members of the individual entity;
- generating at least one multiple entity profile of at least one multiple entity defined by a combination ~~including~~ comprising individual entities and interacting pairs of entities, from historical transactions that include the members of each of the individual entities included in a multiple entity and that include interacting pairs of entities; and
- 15 enhancing at least one single entity profile using at least one multiple entity profile to generate the enhanced profile.
2. (original) The method of Claim 1, wherein enhancing at least one single entity profile using at least one multiple entity profile further comprises:
- 20 merging at least one multiple entity profile with at least one individual entity profile that have a common member to produce a merged profile; and
- rolling up a merged profile with respect to a selected one of the individual entities to produce the enhanced profile.
- 25 3. (original) The method of Claim 1, further comprising:
- providing at least one of a single entity profile, an enhanced profile, or a multiple entity profile as an input into a predictive model for predicting a transaction pertaining to an entity included in the profile.
- 30 4. (original) The method of Claim 1 further comprising:
- providing at least one of a single entity profile, an enhanced profile, or a multiple entity profile as an input into a profile of a different entity.
5. (original) The method of Claim 1, further comprising:

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deriving from at least one of a single entity profile, an enhanced profile, or a multiple entity profile statistics which summarize transactions pertaining to an entity included in the profile.

- 5 6. (original) The method of Claim 1, wherein each profile includes a plurality of variables, and generating at least one single entity profile of an individual entity having individual members further comprises:
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- for each member of an entity:
- 10 determining a peer group of the member; and
- normalizing at least one profile variable of the entity with respect to the member's distance from other members in the member's peer group.
7. (original) The method of Claim 3, wherein a member's peer group is determined by a declared specialty of the member.
- 15 8. (original) The method of Claim 3, wherein a member's peer group is determined by transactions engaged in by the member.
9. (original) The method of Claim 1, wherein the entities are healthcare related entities.
- 20 10. (original) The method of Claim 1, wherein the entities include healthcare providers and patients.
11. (original) The method of Claim 1, wherein the entities include a healthcare related facility.
- 25 12. (original) The method of Claim 1, wherein the entities include a healthcare Claims processor.
13. (original) The method of Claim 10, wherein at least one multiple entity is a combination of a provider and a patient.
- 30 14. (original) The method of Claim 10, wherein an entity profile of a provider entity includes a procedure mix variable that measures a relative amount of activity a provider member has in each of a plurality of procedure categories.
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15. (original) The method of Claim 14, wherein the amount of activity is relative to each provider member's peers.

16. (original) The method of Claim 14, wherein the procedure categories are defined by JDC9 codes.

~~17. (original) The method of Claim 14, wherein the procedure categories are defined by a clustering process on provider or patient historical transactions.~~

18. (original) The method of Claim 10, wherein an entity profile of a provider entity includes an age group concentration variable that measures activity of a provider member in each of a plurality of patient age groups relative to the provider member's peers.

19. (original) The method of Claim 10, wherein an entity profile of a provider entity includes a single-day activity variable that measures a frequency and magnitude of very-high activity days of a provider member.

20. (original) The method of Claim 10, wherein an entity profile of a provider entity includes a monthly activity variable that measures monthly activity of a provider member.

21. (original) The method of Claim 10, wherein the monthly activity measure is a distribution of monthly activity of a provider member relative to the provider member's peers.

22. (original) The method of Claim 20, wherein an entity profile of a provider entity includes a quarterly activity variable that measures quarterly activity of a provider member.

23. (original) The method of Claim 10, wherein an entity profile of a provider entity includes a group practice participation variable that identifies providers that are part of a group practice.

24. (original) The method of Claim 10, wherein an entity profile of a provider entity includes a client consecutive visit variable that measures a frequency with which a

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same member of a client entity visits a same provider member in a selected period of time.

- 5 25. (original) The method of Claim 10, wherein an entity profile of a provider entity includes a per-day activity variable that measures a provider member's daily activity level, according to at least one of:

10 ~~number-of-services-per-day;~~  
total dollars-paid per day;  
number of clients per day;  
total dollars-per-client per day; or  
number-of-services-per-client per day.

- 15 26. (original) The method of Claim 10, wherein an entity profile of a provider entity includes a per-client activity variable that measures a provider member's activity level with respect to individual client entity members over a selected time period.

- 20 27. (original) The method of Claim 10, wherein an entity profile of a provider entity includes a multiple providers activity variable that measures, for each provider member, the activity of other provider members who provide services to clients of the provider member on a same day that the provider member provides services.

- 25 28. (original) The method of Claim 10, wherein an entity profile of a provider entity includes a ratio of procedure categories variable that measures for a provider member at least one ratio of one category of service provided by the provider member to another category of service provided by the provider member.

- 30 29. (original) The method of Claim 10, wherein an entity profile of a client includes a variable that measures an activity level of a non-repeatable service provided to a client member.

30. (original) The method of Claim 10, wherein an entity profile of an entity includes a variable that describes transactions of entity members with respect to the order of the transactions over time.

- 35 31. (currently amended) A computer implemented method of generating a profile of an entity, the profile including for each member of the entity, a single observation having at

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least one variable describing historical transactions pertaining to that member, the method comprising:

a direct profile process that generates a direct profile of an entity having members, from historical transactions of the members of the entity;

5 multiple applications of the direct profile process with respect to distinct entities, including at least one multiple entity comprising a combination of individual entities and interacting pairs of entities, to produce respective individual and multiple entity profiles;

an enhance process that enhances the profile of a first entity using a profile of a second entity; and

10 at least one application of the enhance process to enhance the profile of a multiple entity with the profile of a single entity by combining observations in the multiple entity profile that have a common member in the single entity profile.

32. (currently amended) A computer implemented method of generating an enhanced  
15 profile of a 1st entity, the 1st entity having a plurality of members, the enhanced profile of the 1st entity including for each member of the 1st entity, a single observation having at least one variable describing historical transactions pertaining to that member, the method comprising:

a direct profile process that generates a direct profile of an entity having  
20 members, from historical transactions of the members of the entity;

an enhance process that enhances the profile of an entity using a profile of another entity by combining portions of observations of the entities that have a common member;

multiple applications of the direct profile process with respect to the 1st, 2nd, and  
25 3rd entities to produce respective 1st, 2nd, and 3rd profiles, wherein the 3rd entity is a combination of the 1st and 2nd entities, wherein said 1st and 2nd entities are an interacting pair of entities;

an application of the enhance process on the profile of the 3rd entity with the  
profile of the 2nd entity to produce an enhanced 3rd entity profile; and

30 an application of the enhance process on the profile of the 1st entity with the enhanced profile of the 3rd entity.

33. (currently amended) A computer implemented system of generating an enhanced  
35 profile of a 1st entity, the 1st entity having a plurality of members, the enhanced profile of the 1st entity including for each member of the 1st entity, a single observation having